In re Patent Application of
PAU ET AL.
Serial No. **Not Yet Assigned**
Filed: **Herewith**

A1 CONT'D B1 RULE 1.126

~~11~~ 10. A method of producing an output bitstream of coded digital video data having a desired bit-rate different from a bit-rate of an input bitstream of coded digital video data, the method comprising:

dividing the input bitstream into a sequence of coded data and into a sequence of control bits;

modifying the sequence of control bits as a function of the desired bit-rate of the output bitstream for producing an output sequence of control bits;

decoding the sequence of coded data for producing an intermediate sequence of data;

quantizing with a pre-established step and coding the intermediate sequence of data for producing an output sequence of coded data; and

merging the output sequence of control bits and the output sequence of coded data for producing the output bitstream of coded digital video data having the desired bit-rate.

~~12~~ 11. A method according to Claim 10 wherein the intermediate sequence of data is dequantized before being quantized with the pre-established step.

~~13~~ 12. A method according to Claim 10 wherein the input and output bitstreams of coded digital video data comprise MPEG data.

~~14~~ 13. A method according to Claim 10 wherein the input and output bitstreams of coded digital video data comprise MPEG2 data.

A1 CONT'D

RULE 1.126 14 ~~15~~. A method according to Claim 10 wherein the decoding comprises performing a Huffman decoding followed by a run-length decoding; and wherein coding comprises performing a run-length coding followed by a Huffman coding.

15 ~~16~~. A method according to Claim 10 wherein quantizing with the pre-established step comprises a feed-back rate control technique.

16 ~~17~~. A method according to Claim 10 wherein quantizing with the pre-established step comprises a feed-back/forward hybrid rate control technique.

17 ~~18~~. A method of producing an output bitstream of coded digital video data having a desired bit-rate different from a bit-rate of an input bitstream of coded digital video data, the method comprising:

dividing the input bitstream into a sequence of coded data and into a sequence of control bits;

modifying the sequence of control bits as a function of the desired bit-rate of the output bitstream for producing an output sequence of control bits;

decoding the sequence of coded data using a Huffman decoding followed by a run-length decoding for producing an intermediate sequence of data;

quantizing with a pre-established step and coding the intermediate sequence of data using a run-length coding followed by a Huffman coding for producing an output sequence of coded data; and

In re Patent Application of
PAU ET AL.
Serial No. **Not Yet Assigned**
Filed: **Herewith**

A1 CONT'D

merging the output sequence of control bits and the output sequence of coded data for producing the output bitstream of coded digital video data having the desired bit-rate.

RULE 1.126 18 ~~19.~~ A method according to Claim 18 wherein the intermediate sequence of data is dequantized before being quantized with the pre-established step.

19 ~~20.~~ A method according to Claim 18 wherein the input and output bitstreams of coded digital video data comprise MPEG data.

20 ~~21.~~ A method according to Claim 18 wherein the input and output bitstreams of coded digital video data comprise MPEG2 data.

21 ~~22.~~ A method according to Claim 18 wherein quantizing with the pre-established step comprises a feed-back rate control technique.

22 ~~23.~~ A method according to Claim 18 wherein quantizing with the pre-established step comprises a feed-back/forward hybrid rate control technique.

23 ~~24.~~ A device for producing a bitstream of coded digital video data having a bit-rate different from a bit-rate of an input bitstream of coded digital video data, the device comprising:

In re Patent Application of
PAU ET AL.
Serial No. **Not Yet Assigned**
Filed: **Herewith**

A1 CONT'D

a first circuit for separating the input bitstream into a sequence of coded data and into a sequence of control bits;

a second circuit having an input for receiving the sequence of control bits, said second circuit for generating a modified sequence of control bits as a function of the desired bit-rate of the output bitstream for providing an output sequence of control bits;

a decoder having an input for receiving the sequence of coded data and an output for providing an intermediate sequence of data;

a quantizer for quantizing the intermediate sequence of data with a pre-established step;

an encoder connected to an output of said quantizer for providing an output sequence of coded data; and

a third circuit for merging the output sequence of control bits and the output sequence of coded data for producing the output bitstream having the desired bit-rate.

RULE 1.126 24 ~~25.~~ A device according to Claim 24 further comprising a dequantizer connected between said decoder and said quantizer for dequantizing the intermediate sequence of data.

25 ~~26.~~ A device according to Claim 24 wherein the input and output bitstreams of coded digital video data comprises MPEG data.

In re Patent Application of
PAU ET AL.
Serial No. **Not Yet Assigned**
Filed: **Herewith**

A1 CONT'D RULE 1.126

26 ~~27~~. A device according to Claim 24 wherein the input and output bitstreams of coded digital video data comprises MPEG2 data.

27 ~~28~~. A device according to Claim 24 wherein said decoder comprises a Huffman decoder and a run-length decoder connected in series thereto.

28 ~~29~~. A device according to Claim 24 wherein said encoder comprises a run-length coder and a Huffman coder connected in series thereto.

29 ~~30~~. A device according to Claim 24 further comprising a bit rate control circuit connected to said encoder for setting quantizing of the intermediate sequence of data by said quantizer.

30 ~~31~~. A device according to Claim 24 wherein said third circuit comprises a multiplexer connected to outputs of said first circuit, said second circuit and said encoder.

31 ~~32~~. A device for producing a bitstream of coded digital video data having a bit-rate different from a bit-rate of an input bitstream of coded digital video data, the device comprising:

a first circuit for separating the input bitstream into a sequence of coded data and into a sequence of control bits;

a second circuit having an input for receiving the sequence of control bits, said second circuit for generating a

A1 CONT'D

modified sequence of control bits as a function of the desired bit-rate of the output bitstream for providing an output sequence of control bits;

a decoder having an input for receiving the sequence of coded data and an output for providing an intermediate sequence of data, said decoder comprising a Huffman decoder and a run-length decoder connected in series thereto;

a quantizer for quantizing the intermediate sequence of data with a pre-established step;

an encoder connected to an output of said quantizer for providing an output sequence of coded data, said encoder comprising a run-length coder and a Huffman coder connected in series thereto; and

a third circuit for merging the output sequence of control bits and the output sequence of coded data for producing the output bitstream having the desired bit-rate.

RULE 1.126

32 ~~33.~~ A device according to Claim 32 further comprising a dequantizer connected between said decoder and said quantizer for dequantizing the intermediate sequence of data.

33 ~~34.~~ A device according to Claim 32 wherein the input and output bitstreams of coded digital video data comprises MPEG data.

34 ~~35.~~ A device according to Claim 32 wherein the input and output bitstreams of coded digital video data comprises MPEG2 data.